

IN THE CLAIMS:

The status of each claim that has been introduced in the above-referenced application is identified in the ensuing listing of the claims. This listing of the claims replaces all previously submitted claims listings.

1. (Previously presented) An apparatus for polishing one or more layers of a semiconductor device structure, comprising:
a polishing pad;
a subpad support located adjacent the polishing pad, the subpad support including a subpad retention element configured to apply a negative pressure; and
a subpad located between the subpad support and the polishing pad, a bottom surface of the subpad being removably secured to the subpad support by way of the negative pressure applied by the subpad retention element while the subpad supports the polishing pad without being secured thereto.

2. (Previously Presented) The apparatus of claim 1, wherein the polishing pad comprises one of a web format polishing pad and a belt format polishing pad.

3-5 (Canceled)

6. (Previously Presented) The apparatus of claim 1, further comprising a substantially rigid structure on a bottom surface of the subpad.

7-10 (Canceled)

11. (Previously Presented) The apparatus of claim 1, wherein the subpad support comprises at least one lip configured to at least partially prevent lateral movement of a subpad assembled with and secured to the subpad support.

12. (Previously Presented) The apparatus of claim 11, wherein the at least one lip substantially completely laterally surrounds a peripheral edge of the subpad.

13. (Previously Presented) The apparatus of claim 1, wherein a bottom surface of the subpad is substantially free of adhesive material.

14. (Original) The apparatus of claim 1, including a subpad access element.

15. (Previously Presented) The apparatus of claim 14, wherein the subpad access element is configured to at least partially move the polishing pad away from the subpad support.

16. (Previously Presented) The apparatus of claim 14, wherein the subpad access element moves a polishing pad support so as to at least partially move the polishing pad away from the subpad support.

17-39 (Canceled)

40. (Previously Presented) An apparatus for polishing one or more layers of a semiconductor device structure, comprising:

a polishing pad;

a subpad support located adjacent the polishing pad, the subpad support including a substantially planar subpad support surface and a subpad retention element associated with the subpad support surface; and

a subpad disposed on the subpad support surface so as to be positionable between the subpad support and the polishing pad without being secured to the polishing pad, the subpad retention element being configured to removably secure the subpad on the subpad support surface.

41. (Previously Presented) The apparatus of claim 40, wherein the subpad retention element comprises negative pressure applicable to a backing of the subpad through the subpad support.

42. (Previously Presented) The apparatus of claim 40, wherein the subpad retention element mechanically engages a complementary structure on or adjacent to a bottom surface of the subpad.

43. (Previously Presented) The apparatus of claim 40, wherein the subpad support comprises at least one lip configured to at least partially prevent lateral movement of a subpad assembled with and secured to the subpad support.

44. (Previously Presented) The apparatus of claim 43, wherein the at least one lip substantially completely laterally surrounds a peripheral edge of the subpad.

45. (Previously Presented) The apparatus of claim 40, wherein a backing of the subpad is substantially free of adhesive material.

46. (Previously Presented) The apparatus of claim 40, including a subpad access element.

47. (Previously Presented) The apparatus of claim 46, wherein the subpad access element is configured to at least partially move the polishing pad away from the subpad support.

48. (Previously Presented) The apparatus of claim 46, wherein the subpad access element moves a polishing pad support so as to at least partially move the polishing pad away from the subpad support.

49. (Previously Presented) A subpad assembly for use in an apparatus for polishing one or more layers of a semiconductor device structure, comprising:
a subpad configured to support a polishing pad without being secured to the polishing pad;
a support surface configured to receive a subpad; and
a subpad retention element associated with the support surface so as to substantially completely surround a peripheral edge of the subpad to retain the subpad in position on the support surface to support a polishing pad of the apparatus without being secured to the polishing pad.

50. (Previously Presented) The subpad assembly of claim 49, wherein the subpad retention element is configured to removably retain the subpad.

51. (Withdrawn) The subpad assembly of claim 49, wherein the subpad retention element mechanically engages a corresponding feature on or adjacent to a bottom surface of the subpad.

52. (Previously presented) The subpad assembly of claim 49, wherein the subpad retention element is configured to at least partially prevent lateral movement of the subpad.

53. (Canceled)

54. (Canceled)

55. (Previously presented) An apparatus for polishing one or more layers of a semiconductor device structure, comprising:
a polishing pad;
a subpad support located adjacent the polishing pad, the subpad support including a subpad retention element; and

a subpad with a bottom surface that includes a substantially rigid structure comprising polymer or a dense region, the subpad located between the subpad support and the polishing pad and removably secured to the subpad support by way of the subpad retention element while supporting the polishing pad without being secured thereto.

56. (Previously presented) The apparatus of claim 55, wherein the polishing pad comprises one of a web format polishing pad and a belt format polishing pad.

57. (Previously presented) The apparatus of claim 55, wherein the subpad support comprises at least one lip configured to at least partially prevent lateral movement of a subpad assembled with and secured to the subpad support.

58. (Previously presented) The apparatus of claim 57, wherein the at least one lip substantially completely laterally surrounds a peripheral edge of the subpad.

59. (Previously presented) The apparatus of claim 55, wherein a bottom surface of the subpad is substantially free of adhesive material.

60. (Previously presented) The apparatus of claim 55, including a subpad access element.

61. (Previously presented) The apparatus of claim 60, wherein the subpad access element is configured to at least partially move the polishing pad away from the subpad support.

62. (Previously presented) The apparatus of claim 60, wherein the subpad access element moves a polishing pad support so as to at least partially move the polishing pad away from the subpad support.

63. (Previously Presented) An apparatus for polishing one or more layers of a semiconductor device structure, comprising:
a polishing pad;
a subpad support located adjacent the polishing pad and including a subpad retention element comprising at least one lip; and
a subpad located between the subpad support and the polishing pad, a periphery of the subpad substantially laterally surrounded by the at least one lip, the subpad supporting the polishing pad without being secured thereto.

64. (Previously presented) The apparatus of claim 63, wherein the polishing pad comprises one of a web format polishing pad and a belt format polishing pad.

65. (Previously presented) The apparatus of claim 63, including a subpad access element.

66. (Previously presented) The apparatus of claim 65, wherein the subpad access element is configured to at least partially move the polishing pad away from the subpad support.

67. (Previously presented) The apparatus of claim 65, wherein the subpad access element moves a polishing pad support so as to at least partially move the polishing pad away from the subpad support.

68. (Previously presented) The apparatus of claim 63, wherein a bottom surface of the subpad is substantially free of adhesive material.

69. (Previously presented) An apparatus for polishing one or more layers of a semiconductor device structure, comprising:
a polishing pad;
a subpad support located adjacent the polishing pad and including a subpad retention element;

a subpad located between the subpad support and the polishing pad and removably secured to the subpad support by way of the subpad retention element while supporting the polishing pad without being secured thereto; and
a subpad access element.

70. (Previously presented) The apparatus of claim 69, wherein the subpad access element is configured to at least partially move the polishing pad away from the subpad support.

71. (Previously presented) The apparatus of claim 69, wherein the subpad access element moves a polishing pad support in such a way as to at least partially move the polishing pad away from the subpad support.

72. (Previously Presented) A subpad support for use with an apparatus for polishing one or more layers of a semiconductor device structure, which apparatus includes a polishing pad that is movable independently from a subpad and the subpad support to which the subpad is secured, the subpad support comprising a lip configured to substantially completely surround a peripheral edge of a subpad, which is configured to support at least a portion of the polishing pad of the apparatus.

73. (Previously presented) The subpad support of claim 72, further comprising a subpad retention element.

74. (Previously Presented) A subpad assembly for use in an apparatus for polishing one or more layers of a semiconductor device structure, comprising:
a subpad configured to support a polishing pad without being secured to the polishing pad;
a support surface configured to receive a subpad; and
a subpad retention element configured to apply a negative pressure to a bottom surface of the subpad to retain the subpad in position on the support surface.